

|----- A helix -----| |----- C helix -----|

SWMb **VL**-----**SEG**EWOLV**LHV**WAK**VEADVA**-----**GH**GOD**IL**LR**LEK**SH**ETLEK** 42
HemAT-Hs **Y**SN**ND**TL**VTAD**V**RNG**IG**CH**AL**AD**R**IS**LD**E**-----**AE**LA**WR**LS**ET**G**DD**DD**TMA**AL**AE**OP**LE**AT 60
HemAT-Bs **H**EF**KR**K**R**K**Q**ET**A**F**SD**S**NG**Q**Q**K**N**-**RI**Q**LT**N**K**H**AD**V**K**Q**L**K**M**V**R**U**G**DA**EL**V**L**E**Q**L**Q**PL**IQ**EN 61

| D helix | |----- E helix -----| |----- F helix -----|

SWMb -----**ED**R**S**K**IL**K**LE**A**EM**K**AS**ED**LK**K**H**G**VT**V**L**-----**TA**LC**AI**L**KK**-**K**CH**HE**A**E**-----**LK**PL**U**A**QS** 92
HemAT-Hs **AD**AL**VT**D**E**-----**YD**H**LE**S**Y**ER**TQ**D**LE**AN**ST**K**T**VE**Q**L**K**ET**Q**AE**Y**LL**GL**GR**GE**Y**D**TE**Y**AA**Q**R**AR**I**G**K**I** 122
HemAT-Bs **LV**N**LV**D**AS**-----**YR**N**LD**E**SS**S**MD**LI-**ND**HS**S**V**D**R**L**K**Q**T**K**R**H**I**Q**EM**F**AG**V**D**D**E**F**I**E**K**R**N**RI**AS**I** 122

|----- G helix -----| |----- H helix -----|

SWMb **H**AT**K**H**K**EP**I**K**Y**LE**IS**E**AI**I**EV**L**HS**R**HP**GD**EG**AD**AO**G**AM**N**K**AL**EL**ER**KD**I**AA**-**KY**KE**L**G**Y**Q**G** 153
HemAT-Hs **ED**V**EL**GL**GD**V**YL**G**AT**TR**Y**T**GL**LD**AL**ADD**V**AD**R**GP**E**AA**AA**V**D**EL**V**ARE**LE**ML**K**IL**T**ED**Q**Q**I** 184
HemAT-Bs **HL**R**EL**GL**PK**W**TM**GA**FO**EL**LS**SM**ED**LY-----**EA**SI**T**N**Q**EL**L**K**AI**K**AT**T**K**IL**N**LE**Q**Q**L** 175

SWMb SEQ. ID. No. 76
HemAT-Hs SEQ. ID. No. 77
HemAT-Bs SEQ. ID. No. 78

a

K1
* * * * *

Tsr **LM**RT**V**G**D**V**R**NC**AN**AL**Y**SC**AS**E**I**AT**G**NN**D**T**SS**TE**Q**QA**S**LE**ET**AA**S**ME**Q**LT**AT**V**K**Q**N**A**EN**AR 324
HemAT-Hs **LE**AT**S**Q**D**VA**ER**T**DT**M**R**ART**DD**Q**VD**RM**AD**V**S**RE**IS**SV**S**AS**VE**EV**AS**T**AD**D**V**RR**TS**ED**AE**AL**AO** 283
HemAT-Bs **LH**Q**K**I**Q**ET**SG**SI**AN**LE**SE**TS**RS**SV**Q**EL**V**D**K**SE**GI**SQ**AS**K**AG**TV**TS**ST**VE**KS**IG**CK**KE**LE**V**Q**Q** 259

HCD

Tsr **QA**SH**L**AL**S**ASE**TA**OR**G**G**K**V**D**N**V**Q**T**MR**D**IST**SS**Q**K**I**AD**IT**S**VID**G**IA**F**Q**T**N**L**AL**NA**A**VE**A 386
HemAT-Hs **Q**GE**AA**ADD**AL**AT**MT**D**IDE**AT**D**G**VT**AG**VE**Q**L**GER**AD**V**ES**VT**G**VID**D**IA**EQ**T**N**L**AL**NA**ST**E**A** 345
HemAT-Bs **K**-----**Q**M**N**K**ID**TS**LV**Q**IE**K**EM**V**K**LD**ET**IA**Q**Q**IE**K**IE**G**IV**T**G**IA**EQ**T**N**L**S**LN**AS**IE**S** 311

HCD

Tsr **AR**AGE**Q**GR**G**FA**V**VA**GE**VR**N**LA**OR**SA**QA**ARE**IK**SL**ED**SV**G**K**V**D**V**GS**TL**VE**S**AG**ET**MA**BI**V**SA** 448
HemAT-Hs **AR**AGE**A**CE**G**FA**V**VA**DE**V**K**AL**AE**ES**RE**Q**STR**VE**EL**VE**Q**MQ**AE**TE**ET**VD**Q**LD**EV**N**OR**ICE**G**VER 407
HemAT-Bs **AR**AGE**H**G**K**G**FA**V**VA**NE**VR**K**L**SE**DT**K**K**TV**ST**SEL**V**-----**NN**T**N**T**Q**IN**IV**S**K**HI**K**OV**N**EL 366

R1
* * *

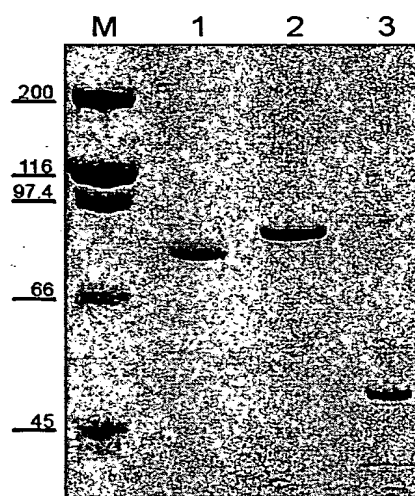
Tsr **V**TR**VT**D**IM**GE**IAS**AS**DE**Q**SR**G**ID**Q**V**GL**AV**EM**DR**VT**Q**Q**NA**AL**VE**ES**AAAA**AL**EE**Q**AS**RL**TE** 510
HemAT-Hs **VE**EA**ME**TL**Q**E**IT**DA**VE**DA**AS**GM**Q**EV**ST**AT**DE**Q**AV**ST**EE**VA**EM**VD**GV**DD**R**AGE**TA**AA**LD**ED**AD** 469
HemAT-Bs **V**SE**S**KE**K**MT**Q**IN**RL**ED**EL**V**HS**M**K**IS**KE**Q**SG**K**ID**VD**LQ**AF**LG**GL**Q**EV**S**RA**V**SH**VA**AS**V**DS**LV**I 428

Tsr **AV**AV**F**RI**Q**Q**Q**RE**TS**AV**V**K**TV**TP**AA**P SEQ. ID. No. 79 536
HemAT-Hs **AT**-----**D**Q**Q**VR**T**VE**EV**RET**V**G**K**LS SEQ. ID. No. 80 489
HemAT-Bs **LT**-----**EE** SEQ. ID. No. 81 432

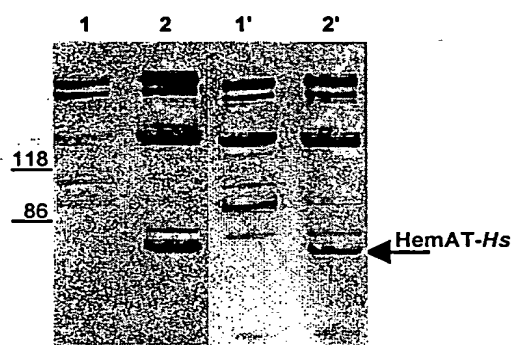
b

FIGURE 1

009027-84655460



a



b

FIGURE 2

Myoglobin-like Protein (MbLP)

GQDVLVVLIKXHPLIQEKIXXFDFFKH

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

AQRXRLAQIHAXKGKIPDWYL

M1-box

SEQ. ID. No. 82

M2-box

SEQ. ID. No. 83

TEMPLATE

IIKXTVPVLXEHGXII

GQDVLVVLIKXNPEIQEKFFFFKH

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

AQRXRLAQIHAXKGKIPDWYL

H-box

SEQ. ID. No. 84

M1-box

SEQ. ID. No. 85

M2-box

SEQ. ID. No. 86

Figure 1 The two sequences used in the analyses. M1 and M2 are the site of myoglobin recognition. M2 is the site of HemAT recognition. The H-box is the site primarily of microbial hemoglobin recognition.

FIGURE 3

0045978-120609

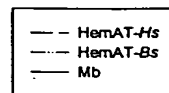
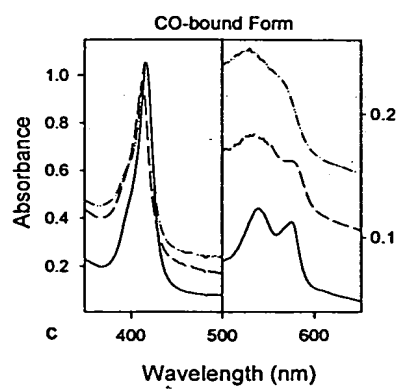
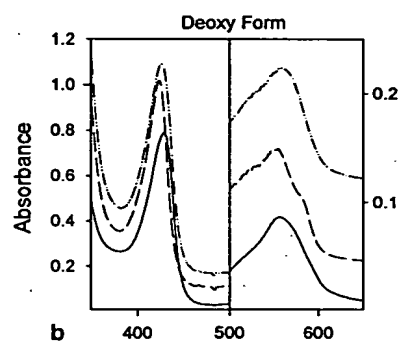
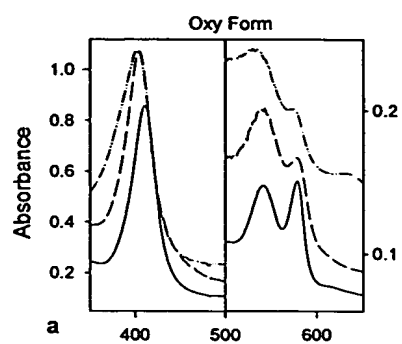


FIGURE 4

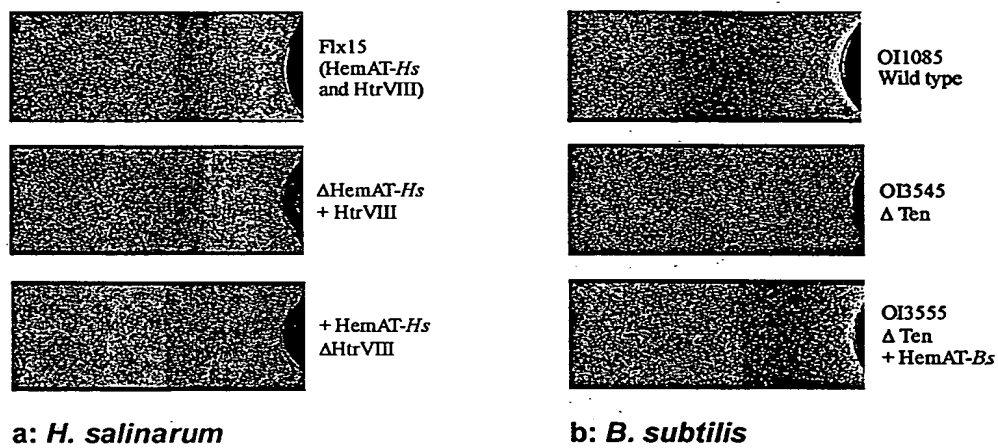


FIGURE 5

669027-8265460

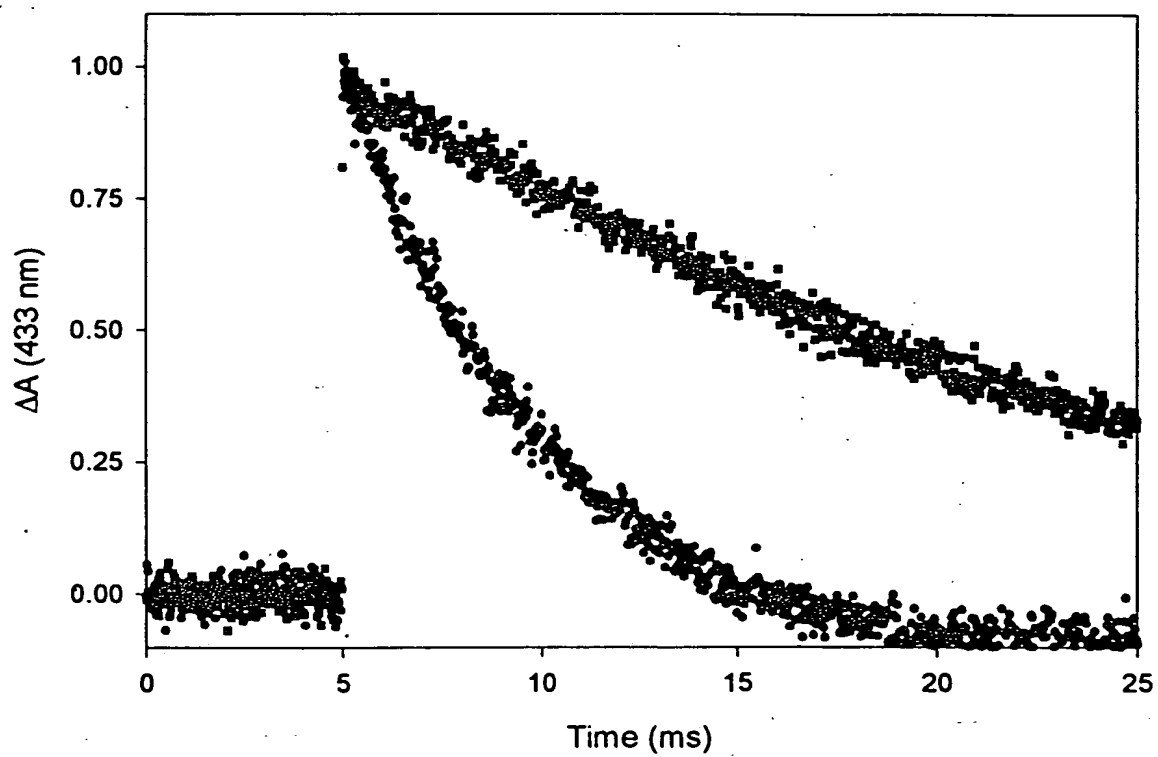


FIGURE 6

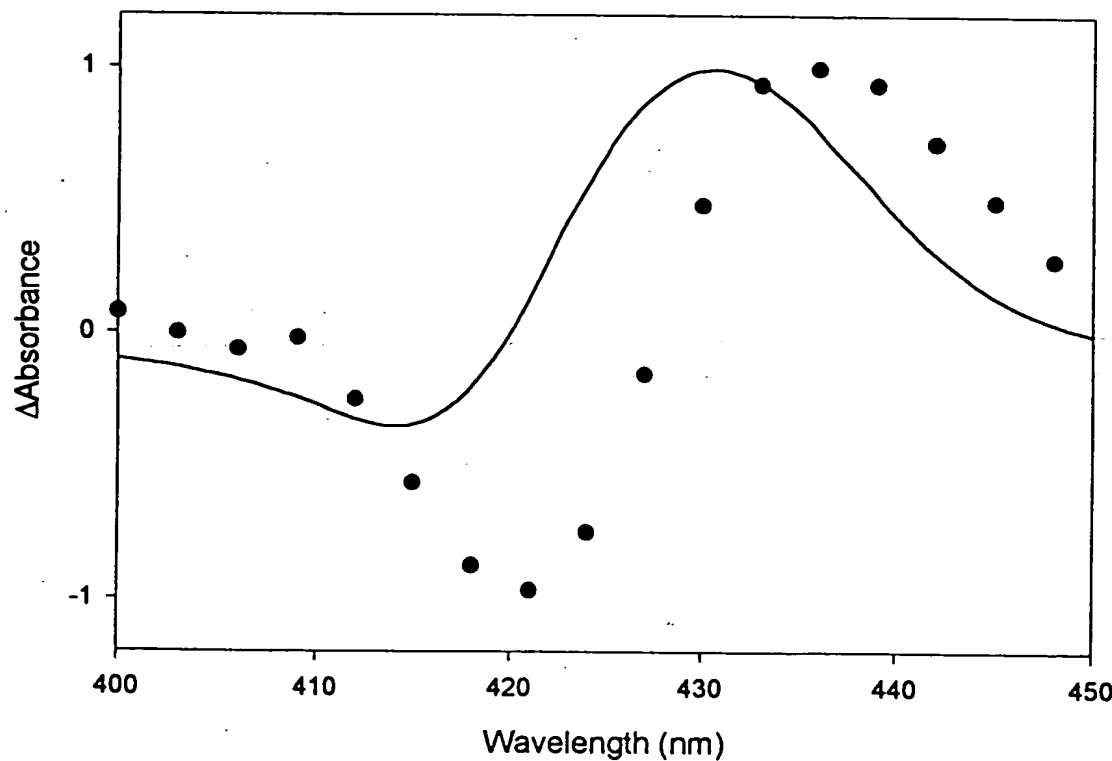
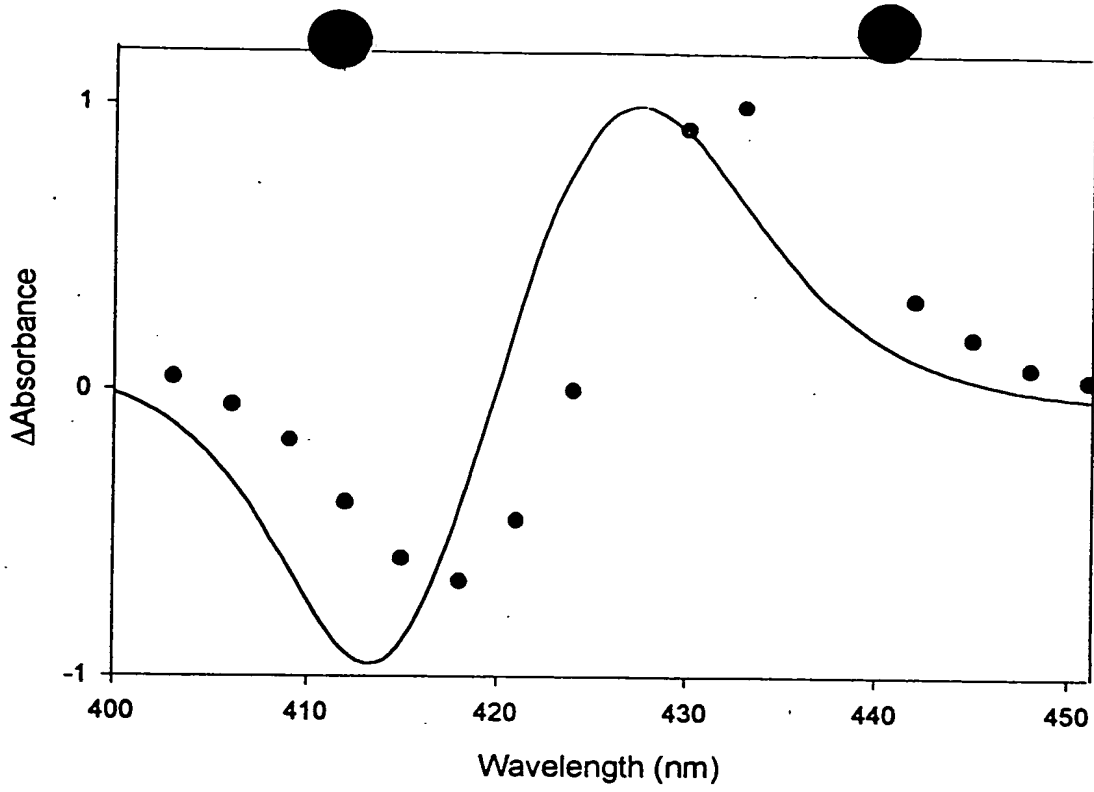


FIGURE 7

005027 0205460

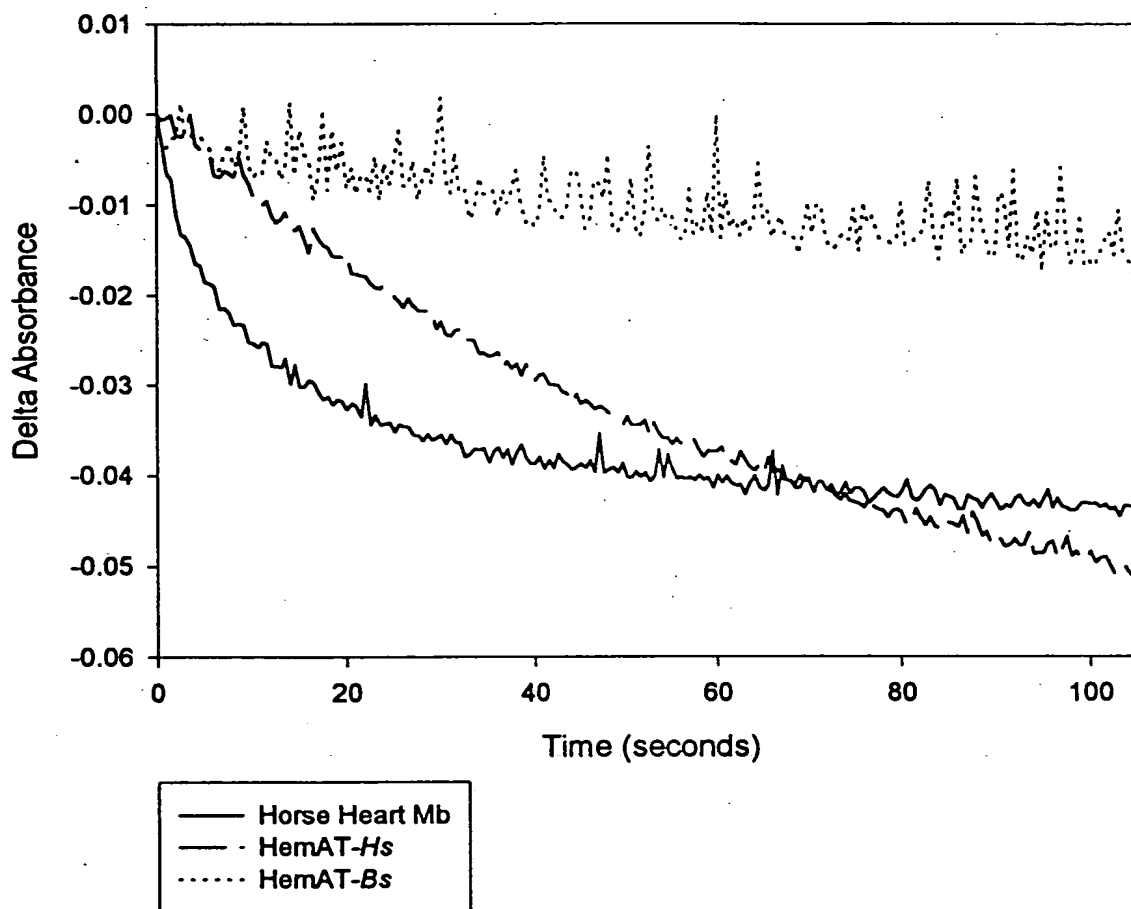


FIGURE 8